

Dr. Jonathan Walker

Direct Examination

Dr. Jonathan Walker



Dr. Jonathan Walker

Education



Ph.D., Economics
Mass. Institute of Technology (MIT)



A.B., Economics
University of California, Berkeley

Professional Experience



Managing Director
Secretariat Economists (2021-Present)



CEO & President (2003-2021)
Economists Incorporated (1990-2003)



Consultant
Monitor Company (1988-1990)



Visiting Research Fellow
Federal Reserve Bank of Boston (1987-1988)

1. Assess whether a conspiracy like the one Plaintiffs allege would be likely to reduce egg supply and increase prices
2. Assess whether egg production decreased and prices increased
3. Determine whether Dr. Baye's analysis and opinions are reliable

Materials Reviewed And Relied Upon



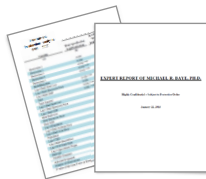
Hundreds of documents, articles, affidavits and other third-party materials about the egg industry, egg production, egg product production, agricultural economics, and animal welfare



15 interviews with participants in the shell egg and egg product industries, including *Rose Acre*, *Daybreak*, *Michael Foods*, *Cal-Maine*, and *Moark*



Transcripts from **almost 70 depositions**, including for representatives of *General Mills*, *Kellogg*, *Nestle*, and *Kraft*



Dr. Baye's **reports and workpapers**



Second Amended Complaint and various court filings

Summary Of Opinions

Case: 1:11-cv-08808 Document #: 531-1 Filed: 11/15/23 Page 5 of 45 PageID #:20445

1

The conspiracy Plaintiffs alleged would be unlikely to reduce supply or raise prices

2

Production and pricing data indicate there was no effective conspiracy to reduce supply and raise prices

3

Dr. Baye's analysis is flawed and invalid

4

Plaintiffs have not demonstrated that egg product prices were higher than they should have been

Summary Of Opinions

Case: 1:11-cv-08808 Document #: 531-1 Filed: 11/15/23 Page 6 of 45 PageID #:20446

1

The conspiracy Plaintiffs alleged would be unlikely to reduce supply or raise prices

2

Production and pricing data indicate there was no effective conspiracy to reduce supply and raise prices

3

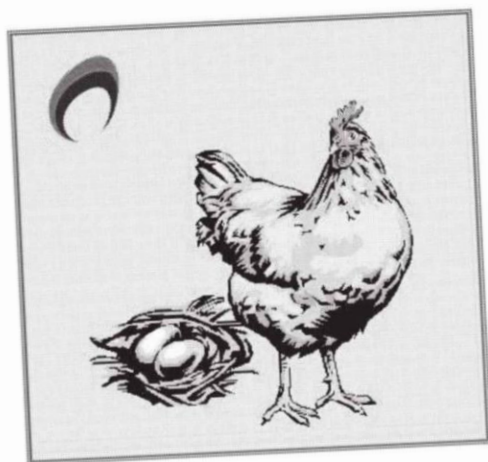
Dr. Baye's analysis is flawed and invalid

4

Plaintiffs have not demonstrated that egg product prices were higher than they should have been

No Limits On Expansion Or Growth

*UNITED EGG PRODUCERS
ANIMAL HUSBANDRY
GUIDELINES FOR*



*U.S. EGG
LAYING FLOCKS
2002 EDITION*

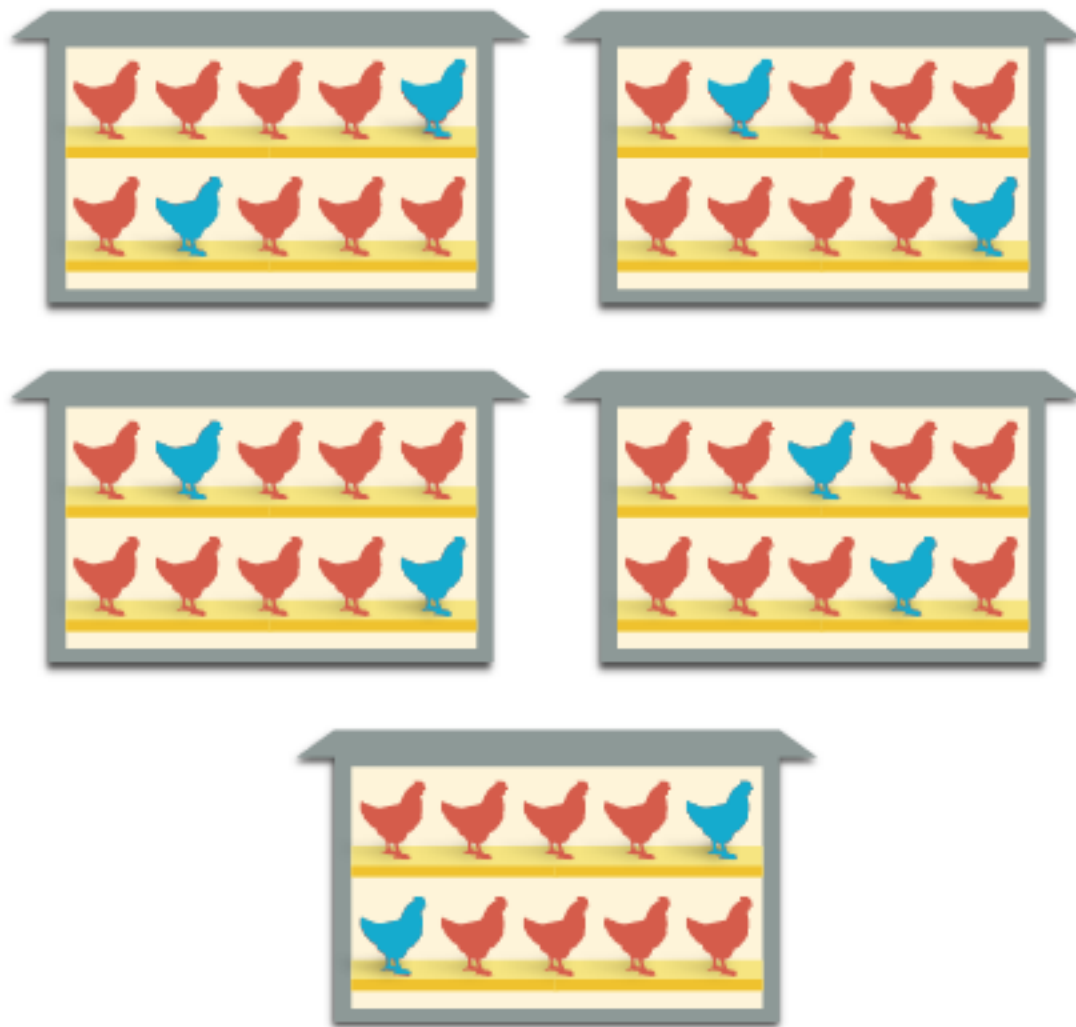
FMI-000171

D-0217-001

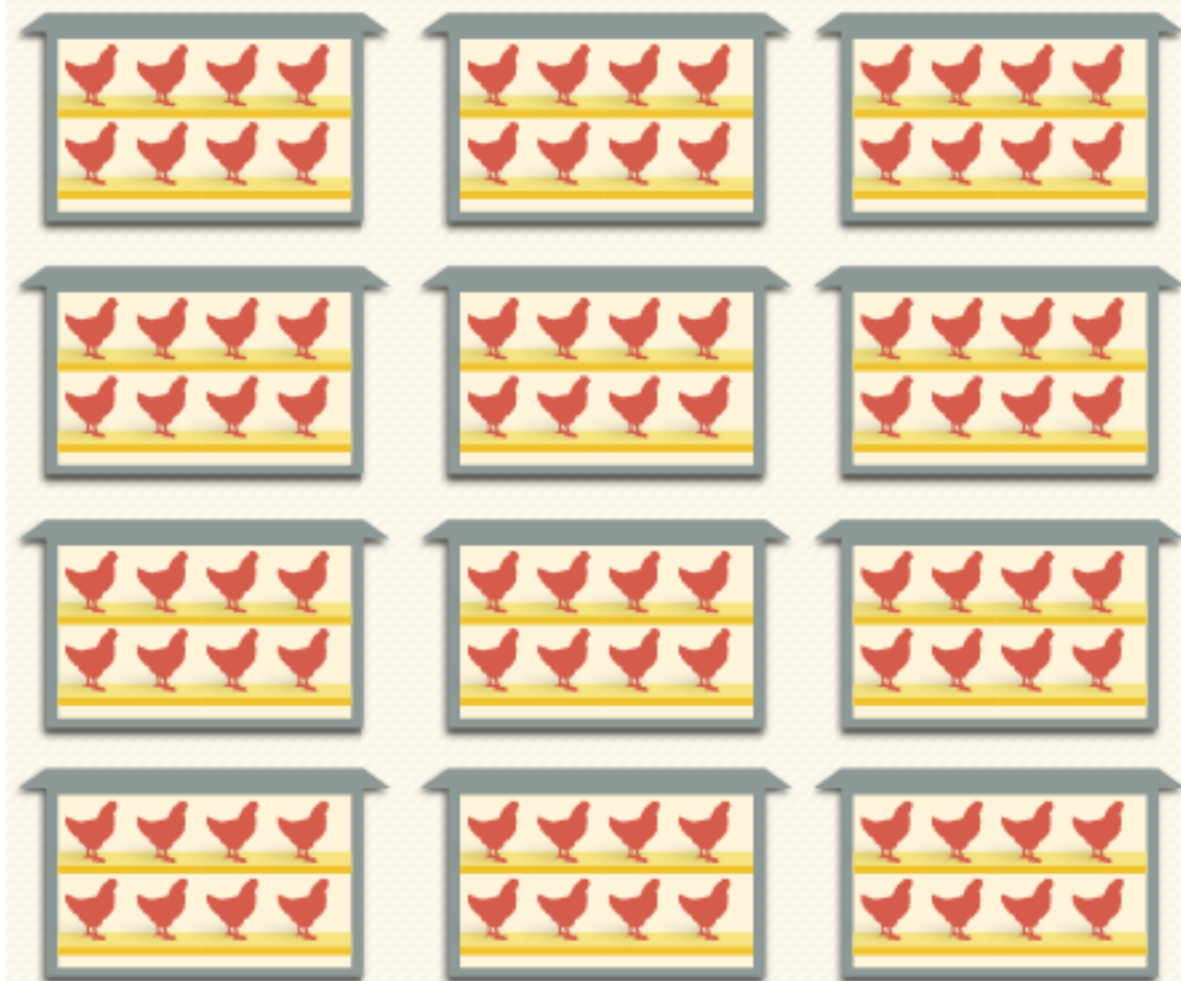
- ✗ No limits on hens
- ✗ No limits on eggs
- ✗ No limits on cages
- ✗ No limits on houses
- ✗ No limits on farms

No Limits On Expansion, Hens Or Production

PLAINTIFFS' THEORY:



THE REALITY:



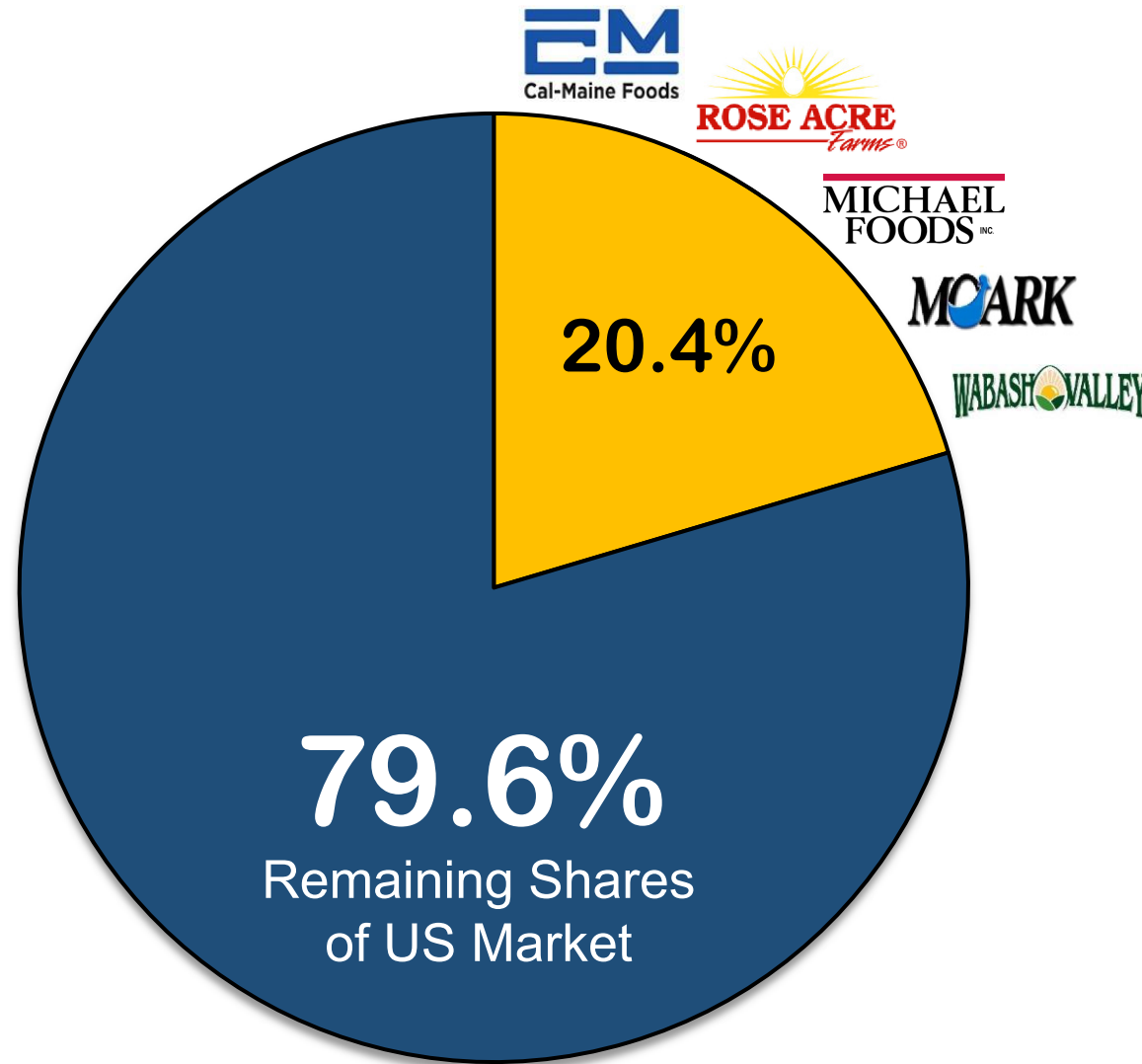
Fragmented Industry



66 Producers
have 1 million hens or more
in 2004

No Alleged Conspirator Has Sufficient Market Power To Control Prices

2004



Examples Of Expansion & Entry



+3.9M capacity
from 2002-2012
(excluding
acquisitions)



Sponsored
expansion to
facilitate
compliance with
McDonald's
animal welfare
standards



Sponsors new
entrants and
expansion with
purchase
commitments



Started in 2000
from zero



Expanded
consistently

At least
+8.3M capacity
from 2002-2012
(excluding
acquisitions)



Egg production

Baye Report, Ex. 7

Summary Of Opinions

1

The conspiracy Plaintiffs alleged would be unlikely to reduce supply or raise prices

2

Production and pricing data indicate there was no effective conspiracy to reduce supply and raise prices

3

Dr. Baye's analysis is flawed and invalid

4

Plaintiffs have not demonstrated that egg product prices were higher than they should have been

The Plaintiffs' Theory

UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF PENNSYLVANIA

IN RE: PROCESSED EGG PRODUCTS
ANTITRUST LITIGATION

MDL No. 24
08-md-0200

THIS DOCUMENT RELATES TO:
Kraft Foods Global, Inc. et al v. United Egg
Producers, Inc., et al., No. 2:12-cv-00088-CP

SECOND AMENDED COMPLAINT

Counters:

I. Overview of Defendants' *Per Se* Unlawful Conspiracy to Control Supply and Artificially Maintain and Increase the Price of Eggs

A. Defendants undertook a series of collective actions in furtherance of their conspiracy to control supply and artificially maintain and increase the price of eggs.

B. Defendants privately recognized that their conspiracy increased prices.

II. Jurisdiction and Venue

III. Parties

A. Plaintiffs

1. Kraft Foods Global, Inc.

2. The Kellogg Company

3. General Mills, Inc.

4. Nestlé USA, Inc.

B. Defendants and Co-Conspirators

1. Defendant Egg Producers

2. Defendant and Co-Conspirator Industry Trade Association

3. Producer and Other Co-Conspirators

IV. Trade and Commerce

A. Overview of Egg Production Cycle

B. The Sale and Consumption of Eggs

C. Shell Eggs and Egg Products Prices Are Correlated

D. Eggs Are a Commodity with No Substitutes and Inelastic Demand

Plaintiffs Kraft Foods Global, Inc., The Kellogg Company, General Mills, Inc., and Nestlé USA, Inc., by their undersigned attorneys, bring this action against Defendants for injunctive relief and treble damages arising out of Defendants' *per se* unlawful violations of the antitrust laws of the United States. Plaintiffs demand a jury trial pursuant to Rule 38 of the Federal Rules of Civil Procedure, and allege the following.

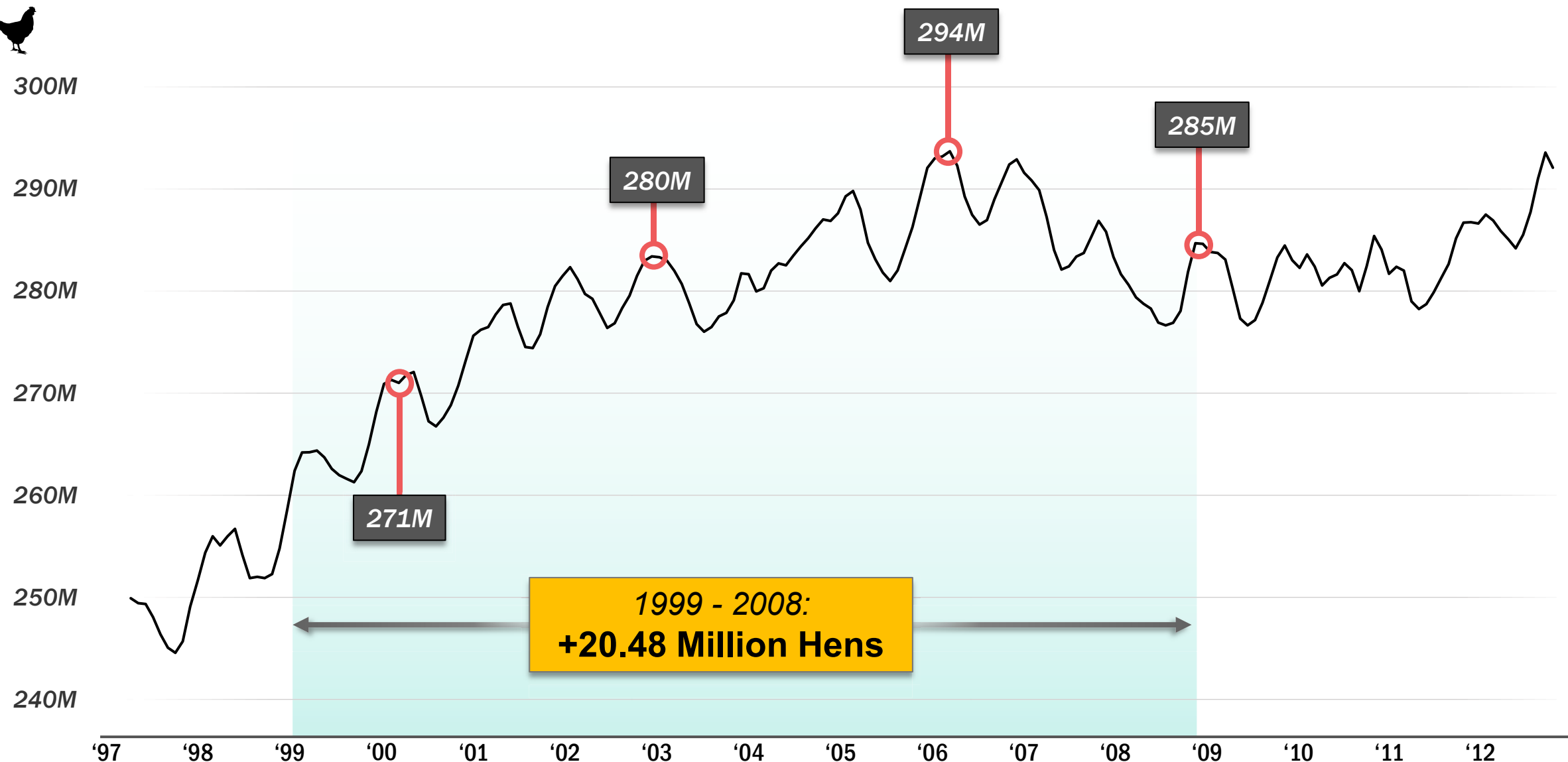
- I. Overview of Defendants' *Per Se* Unlawful Conspiracy to Control Supply and Artificially Maintain and Increase the Price of Eggs
1. "Shell eggs" are eggs sold in their hard shell, typically in cartons. "Egg products" are shell eggs that are broken and sold in liquid, frozen, or dried form. Unless otherwise noted,

7. During the relevant conspiracy period, Defendants unlawfully agreed to and did implement their conspiracy to control supply and artificially maintain and increase the price of eggs through a series of collective actions

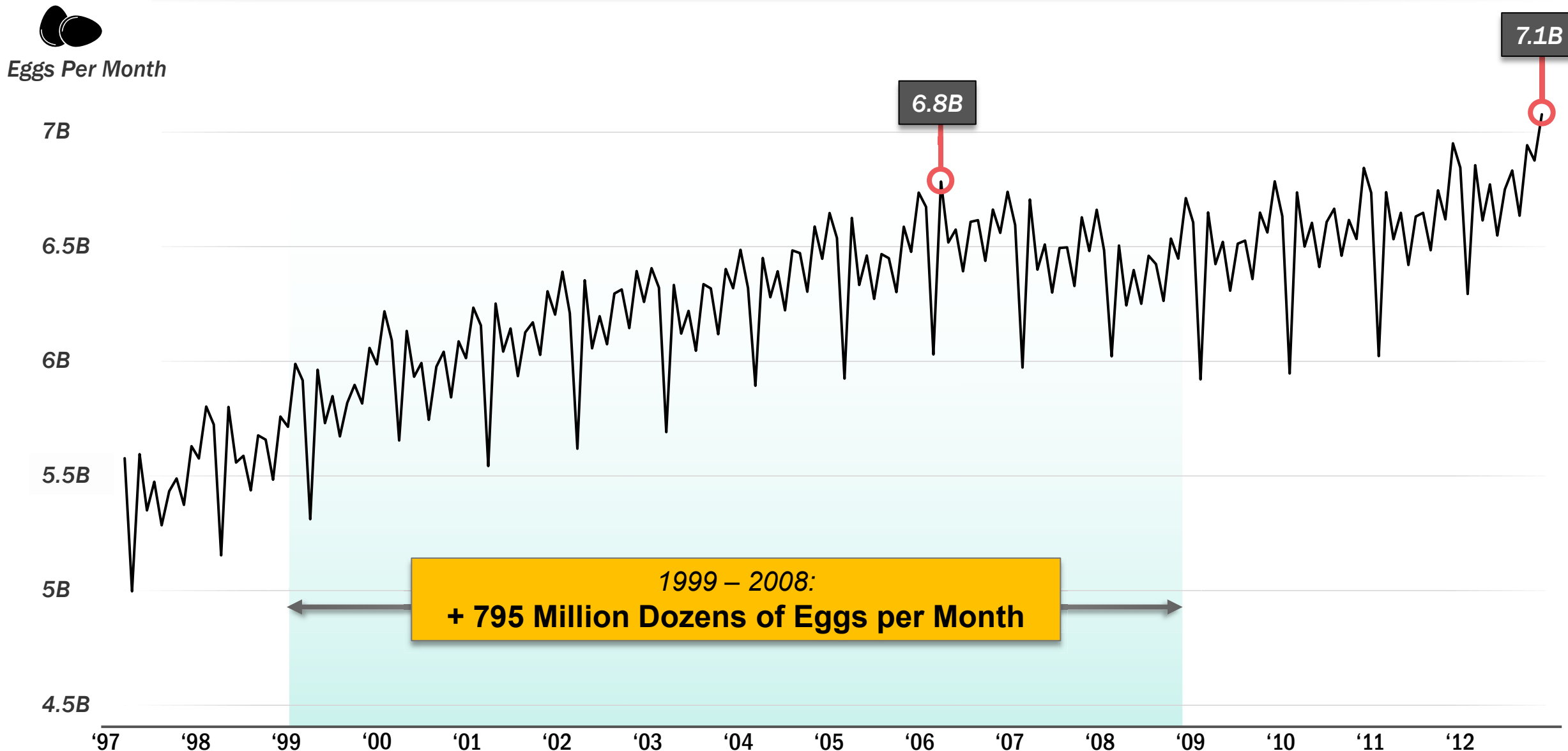
[The shell egg industry has traditionally been subject to periods of high profitability followed by periods of significant loss.]

5. In their non-public internal communications in furtherance of the conspiracy, Defendants recognized that, other things being equal, egg producers could profit from "boom" prices and avoid "bust" prices by controlling supply because the demand for eggs is inelastic.

Flock Size Increased



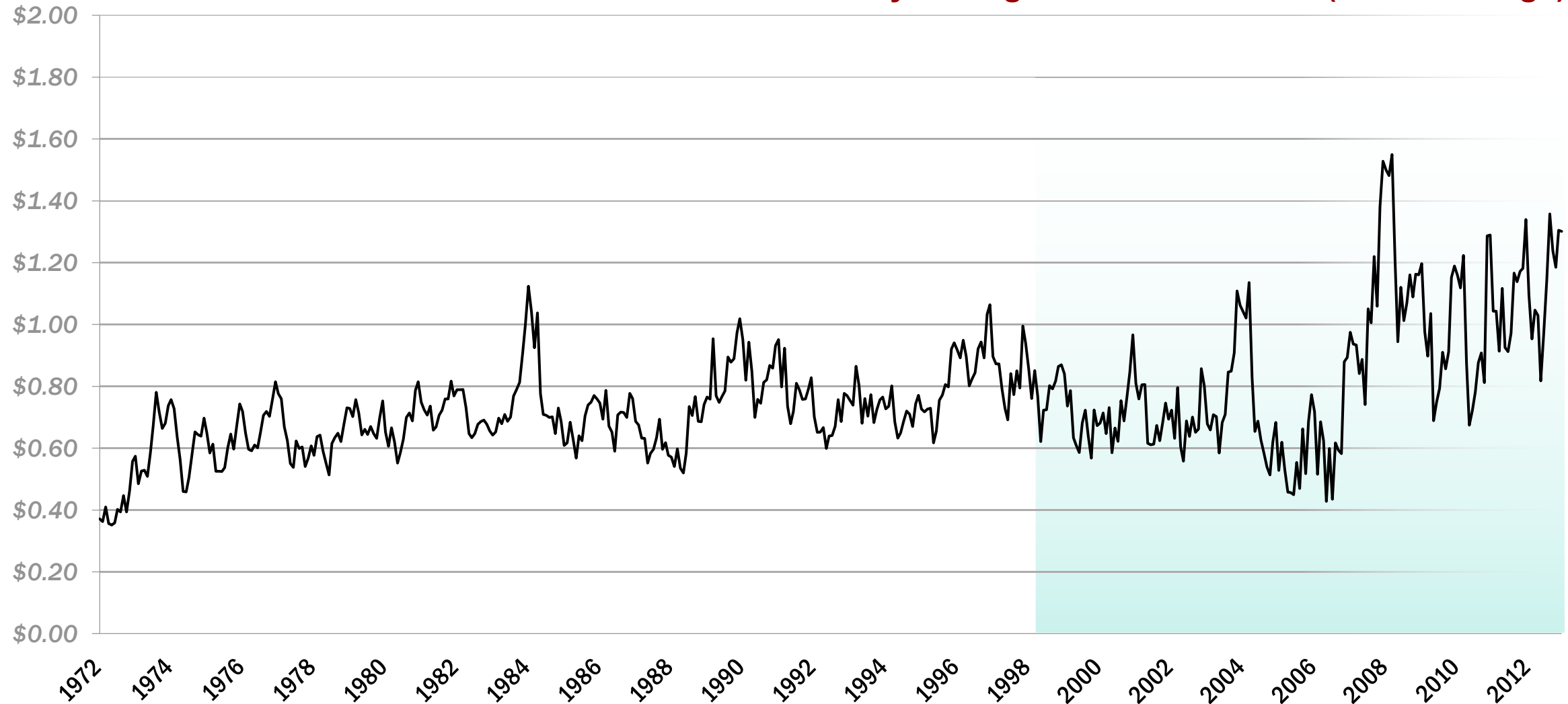
Egg Production Increased



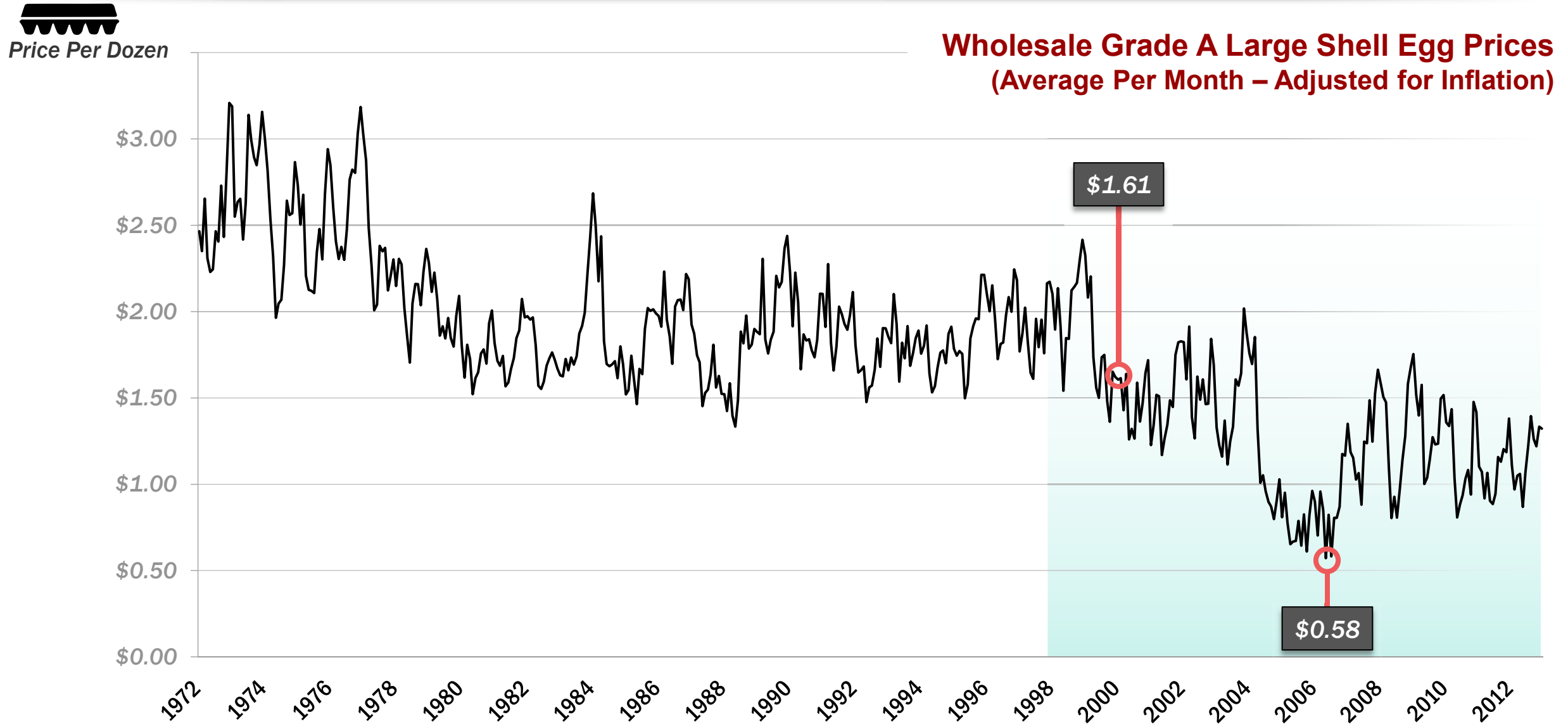
Nominal Prices Were Low


Price Per Dozen

Wholesale Shell Eggs Price Monthly Average for 12-Metro Area (Grade A Large)



Inflation-Adjusted Prices Were Low



Summary Of Opinions

1

The conspiracy Plaintiffs alleged would be unlikely to reduce supply or raise prices

2

Production and pricing data indicate there was no effective conspiracy to reduce supply and raise prices

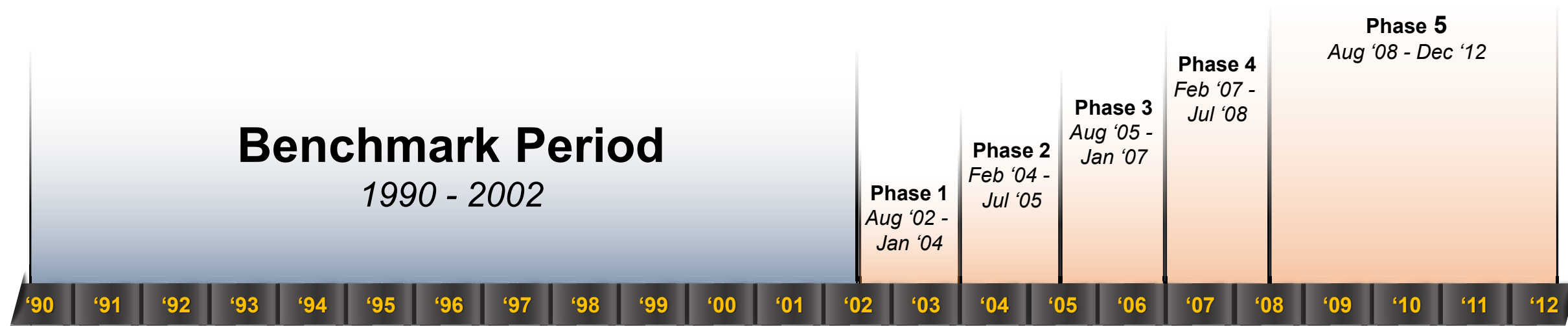
3

Dr. Baye's analysis is flawed and invalid

4

Plaintiffs have not demonstrated that egg product prices were higher than they should have been

Dr. Baye's Data Period



Dr. Baye Offers No Opinion On “Lasting Effects”



Dr. Baye's Regression Results

Case: 1:11-cv-08898 Document #: 531-1 Filed: 11/15/23 Page 21 of 45 PageID #:20461

EXPERT REPORT OF MICHAEL R. BAYE, Ph.D.

Highly Confidential – Subject to Protective Order

January 22, 2015

| Variable (a) | Main Specification Log(Production) (b) | Backfilling Ban Specification Log(Production) (c) |
|---|--|--|
| Restriction 1 | -0.002 | |
| Restriction 2 | -0.006 | |
| Restriction 3 | -0.024 *** | |
| Restriction 4 | -0.056 *** | |
| Restriction 5 | -0.053 *** | |
| Backfilling Ban | | -0.021 *** |
| Lag 4 Real Feed Cost | -0.439 *** | -0.783 *** |
| Lag 4 Real Electricity Price | 0.004 | -0.014 ** |
| Lag 4 Real GDP | 0.026 *** | 0.024 *** |
| Time | 0.001 *** | 0.001 *** |
| Time Squared | | |
| Lag 5 Real Feed Cost | | |
| Lag 5 Real Electricity Price | | |
| Lag 5 Real GDP | | |
| Real Feed Cost | | |
| Real Electricity Price | | |
| Real GDP | | |
| Lag 4 Population | | |
| Lag 4 Real Soybean Price | | |
| Lag 4 Real Corn Price | | |
| Population | | |
| Lag 4 TED | | |
| Lag 4 Real Diesel Price | | |
| Lag 4 Fed Funds Rate | | |
| Lag 4 Agricultural Wages | | |
| Intercept | 8.284 *** | 8.415 *** |
| Monthly Dummies | X | X |
| Adjusted R-Squared | 0.991 | 0.988 |
| Number of Observations | 272 | 272 |
| P-value of the Joint F-test on Restrictions | 0.00 | 0.00 |

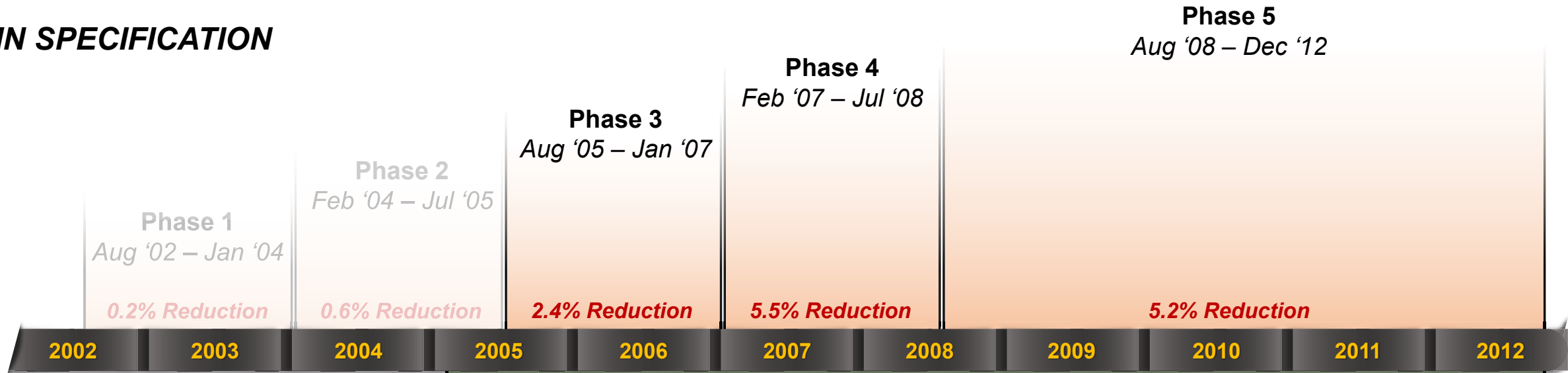
Exhibit 16
Production Analysis
1990 - 2012

| Parameter Estimates | | | | | |
|---|---|---|---|---|---|
| Specification 4 Log(Production) (e) | Specification 5 Log(Production) (f) | Specification 6 Log(Production) (g) | Specification 7 Log(Production) (i) | Specification 8 Log(Production) (j) | Specification 9 Log(Production) (k) |
| -0.001 | -0.003 | -0.003 | -0.003 | -0.002 | -0.009 * |
| -0.003 | -0.010 * | -0.009 | -0.010 ** | -0.005 | -0.015 *** |
| -0.019 *** | -0.031 *** | -0.028 *** | -0.024 *** | -0.024 *** | -0.018 ** |
| -0.050 *** | -0.061 *** | -0.059 *** | -0.053 *** | -0.056 *** | -0.052 *** |
| -0.048 *** | -0.056 *** | -0.058 *** | -0.044 *** | -0.053 *** | -0.054 *** |
| | | -0.546 *** | -0.286 * | | -0.115 |
| | | 0.000 | 0.003 | 0.004 | -0.007 |
| | | 0.027 *** | 0.040 *** | 0.025 *** | 0.046 *** |
| 0.001 *** | 0.001 *** | 0.002 *** | 0.001 *** | 0.001 *** | -0.003 |
| | | | | | 0.000 * |
| -0.500 *** | | | | | |
| -0.002 | | | | | |
| 0.023 *** | | | | | |
| | -0.440 *** | | | | |
| | 0.014 * | | | | |
| | 0.030 *** | | | | |
| | | -0.004 ** | -0.004 ** | | 0.010 |
| | | | | 0.000 | |
| | | | | -0.005 * | |
| | | | -0.006 ** | | -0.005 * |
| | | | 0.000 ** | | 0.000 ** |
| | | | | | -0.003 *** |
| | | | | | -0.007 |
| 8.347 *** | 8.191 *** | 9.193 *** | 9.134 *** | 8.287 *** | 5.870 *** |
| X | X | X | X | X | X |
| 0.990 | 0.991 | 0.991 | 0.991 | 0.990 | 0.992 |
| 271 | 276 | 272 | 272 | 272 | 272 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

Errors.

Dr. Baye's Egg Production Model Results

MAIN SPECIFICATION



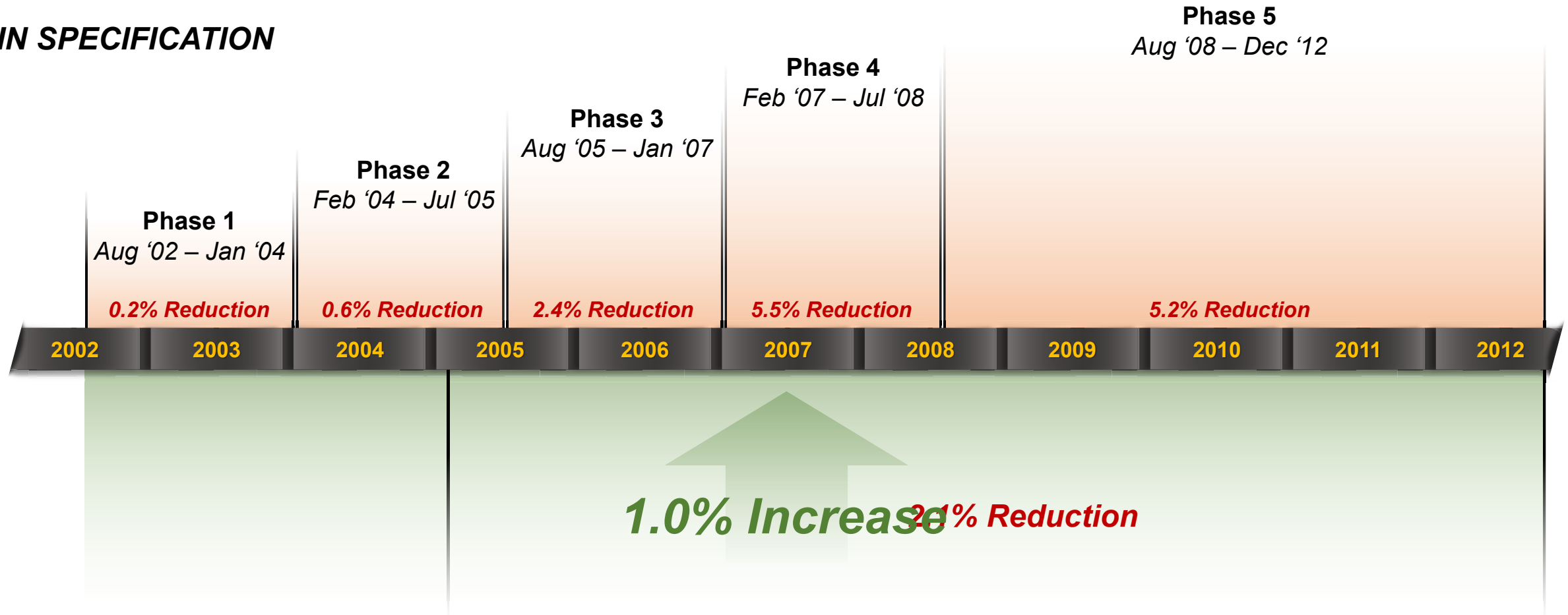
Backfilling Ban: Feb '05 – Dec '12

2.1% Reduction

BACKFILLING BAN

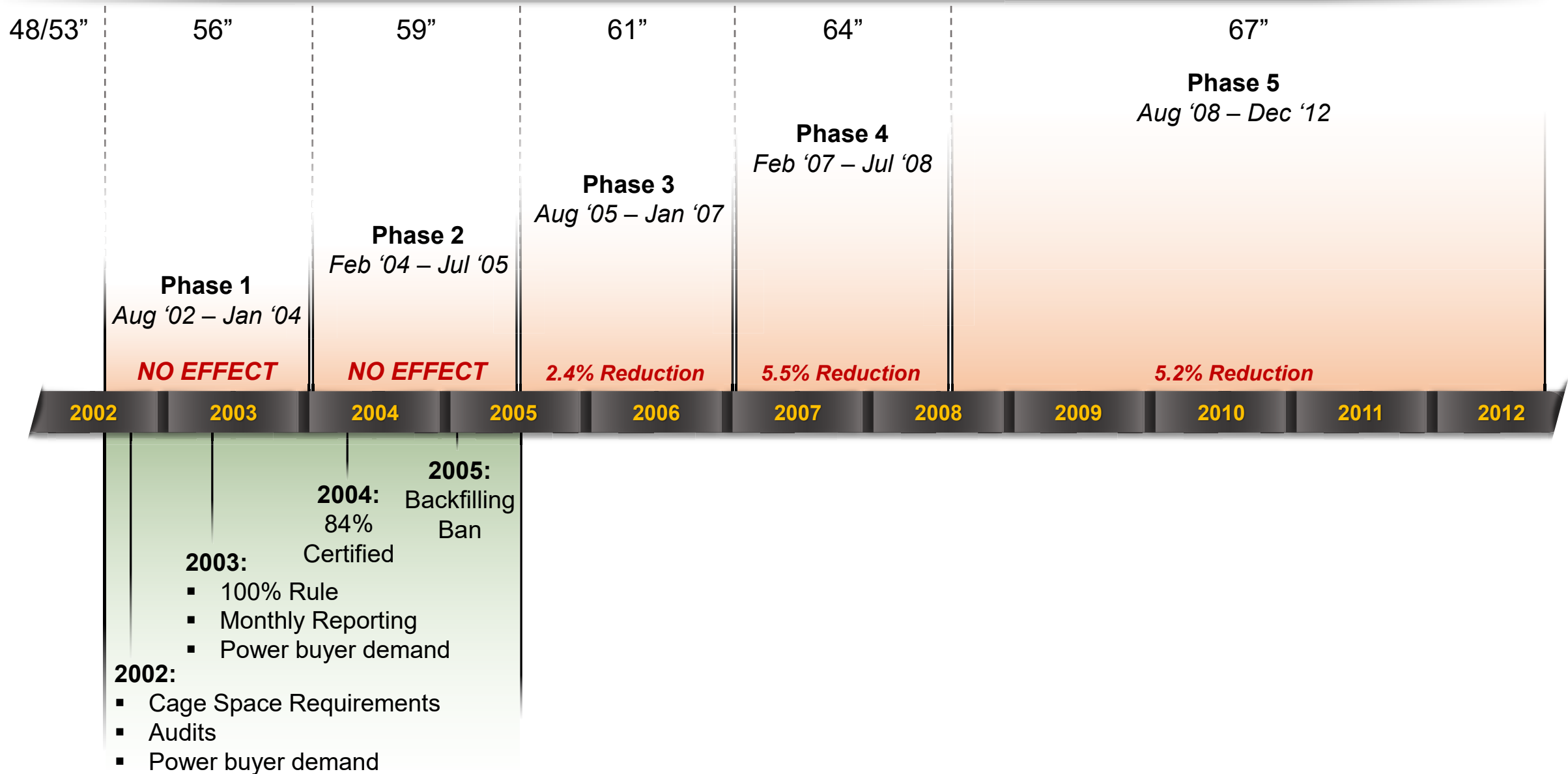
Dr. Baye's Egg Production Model Results

MAIN SPECIFICATION



SINGLE INDICATOR FOR ENTIRE PERIOD

Dr. Baye's Egg Production Model Results



Large Customers Demanded Certified Eggs In 2002 & 2003



Dr. Baye's Benchmark Period Is Inappropriate: The '90s Were Different



Buyer-Specific Cage Space
Requirements

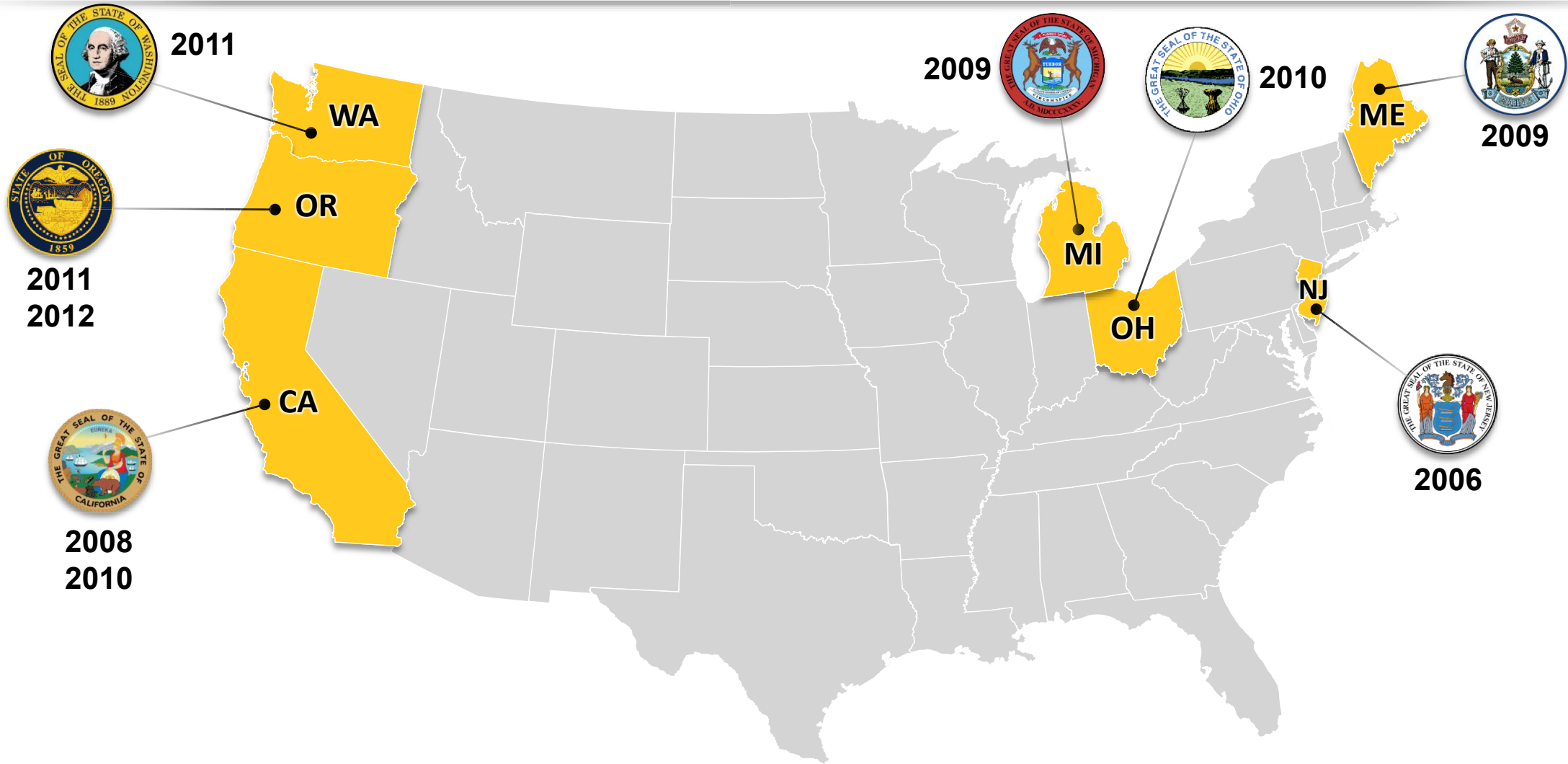


State laws



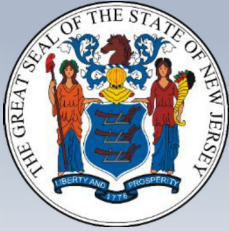
State Animal Welfare Laws

Case: 1:11-cv-08898 Document #: 531-1 Filed: 11/15/23 Page 27 of 45 PageID #:20467



20% of Egg Production

New Jersey Animal Welfare Standards



N.J. Admin. Code. § 2:8-4.4

Passed: Dec 4, 2006

Effective: Dec 4, 2006

LAW REQUIRES:

- Cage housing, not including transport crates, shall be:

Of sufficient size to allow each bird to stand upright in the cage without having its head protrude through the top of the cage, lie down, get up, walk, spread its wings, move its head freely, turn around and rest

California Animal Welfare Standards



Proposition 2

Approved: Nov 4, 2008

Effective: Jan 1, 2015

Cal. Health & Safety Code § 25996

Enacted: Jul 6, 2010

Effective: Jan 1, 2015

LAW REQUIRES:

- Egg-laying hens shall be provided enough space to fully spread both wings
- All eggs produced in and sold into state must comply



Ohio Admin. Code 901:12-9-03

Passed: Mar 31, 2010

Effective: Sep 29, 2011

Effective: Sep 29, 2016

LAW REQUIRES:

- Installation of new conventional cages is prohibited except at existing farms (2011)
- New conventional cage systems on existing farms must provide 67 square inches per hen (2011)
- Existing conventional cage systems must provide house/barn average of 67 square inches per hen (2016)

Oregon Animal Welfare Standards



**Oregon Revised Statute
§§ 632.840 and 632.850**

**Or. Admin. R. 603-018-0005 &
Or. Admin. R. 603-018-0010**

Enacted: Jun 17, 2011

Effective: Jan 1, 2012

LAW REQUIRES:

- Structures built/acquired before January 1, 2012 must meet the UEP Guidelines for space per hen
- Structures built/acquired after January 1, 2012 must meet or be convertible to the AHA Guidelines for space per hen (116.3 sq. in.)
- Eggs and egg products from hens confined in noncompliant cages may not be sold in or into Oregon

Michigan Animal Welfare Standards



Mich. Comp. Laws §287.746

Enacted: Oct 12, 2009

Effective: Oct 12, 2019

LAW REQUIRES:

- Egg-laying hens shall be provided a minimum of 144 square inches of floor space per bird

Washington Animal Welfare Standards



Wash. Rev. Code §69.25.065

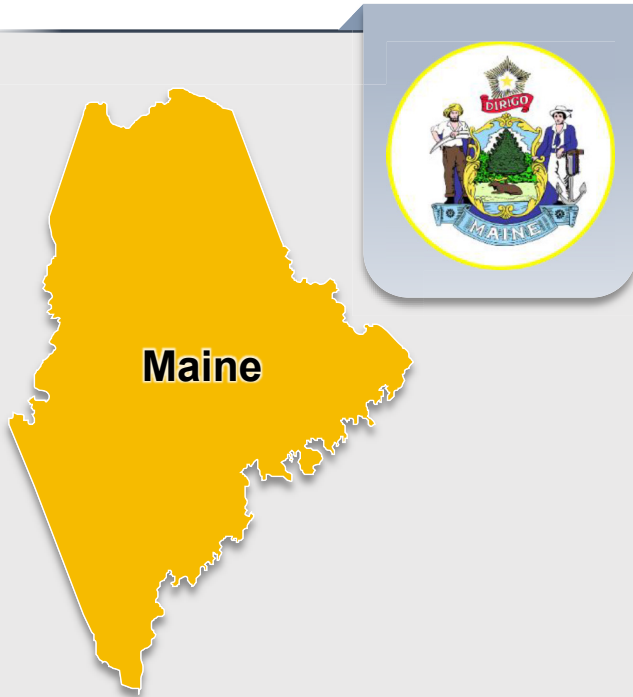
Enacted: May 10, 2011

Effective: Aug 1, 2012

LAW REQUIRES:

- Until January 1, 2026, all eggs sold in intrastate commerce must be produced according to the UEP guidelines for conventional cage systems or cage free Systems
- Until January 1, 2017, for all eggs sold in intrastate commerce that were produced in housing systems built between January 1, 2012, and December 31, 2016, those systems must have been compliant with, or convertible to, the American Humane Association (AHA) facility system plan for enriched colony housing

Maine Animal Welfare Standards



BEST PRACTICES REQUIRE:

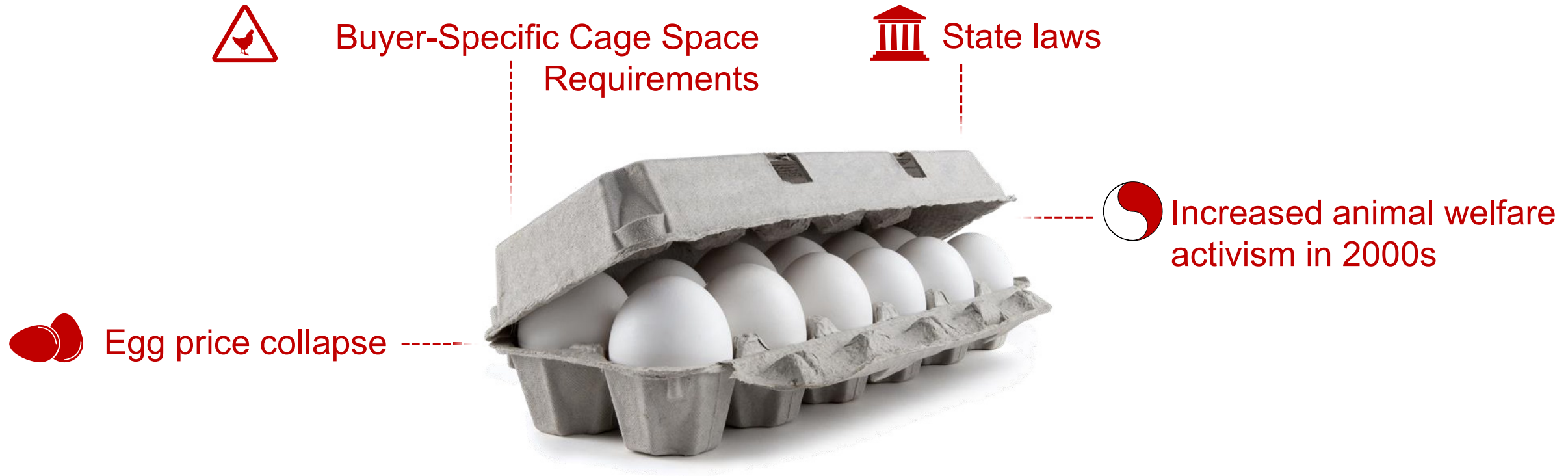
- Egg-laying hens shall be provided a minimum of 67 square inches of space
- That space allowance is calculated on a per hen basis for facilities constructed after January 1, 2010 and on a house-average basis for existing facilities

**State of Maine Best
Management Practices for
Poultry Facilities of More
than 10,000 Birds**

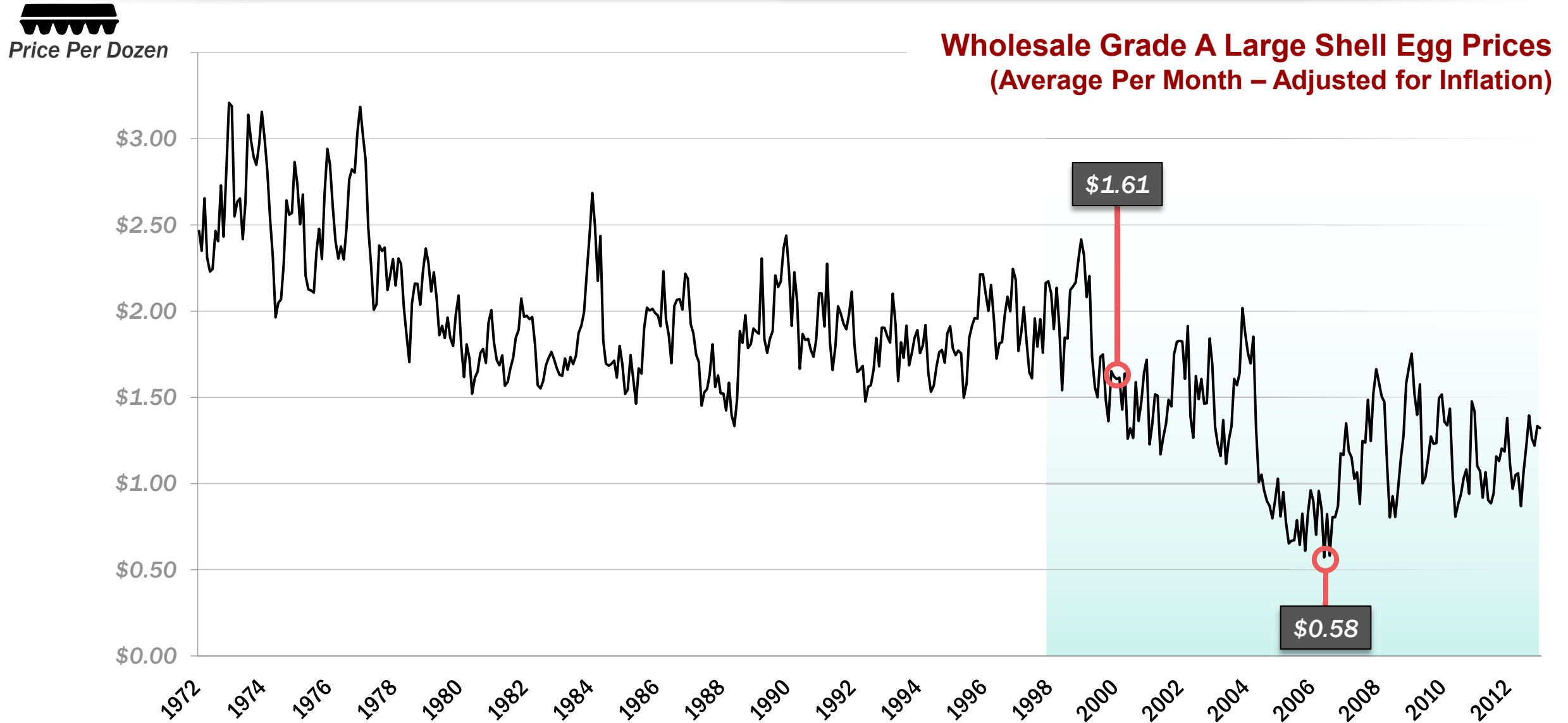
Revised: June 22, 2010

Effective: June 22, 2010

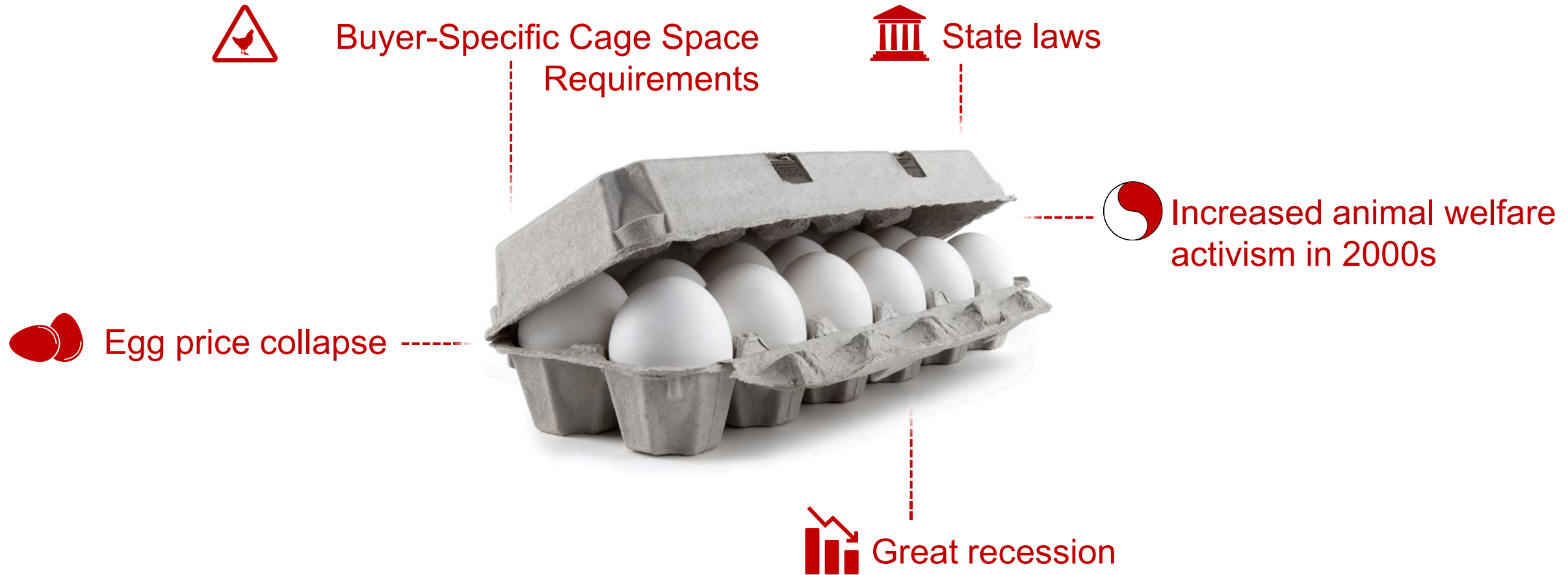
Dr. Baye's Benchmark Period Is Inappropriate: The '90s Were Different



Prices Were At Historical Lows

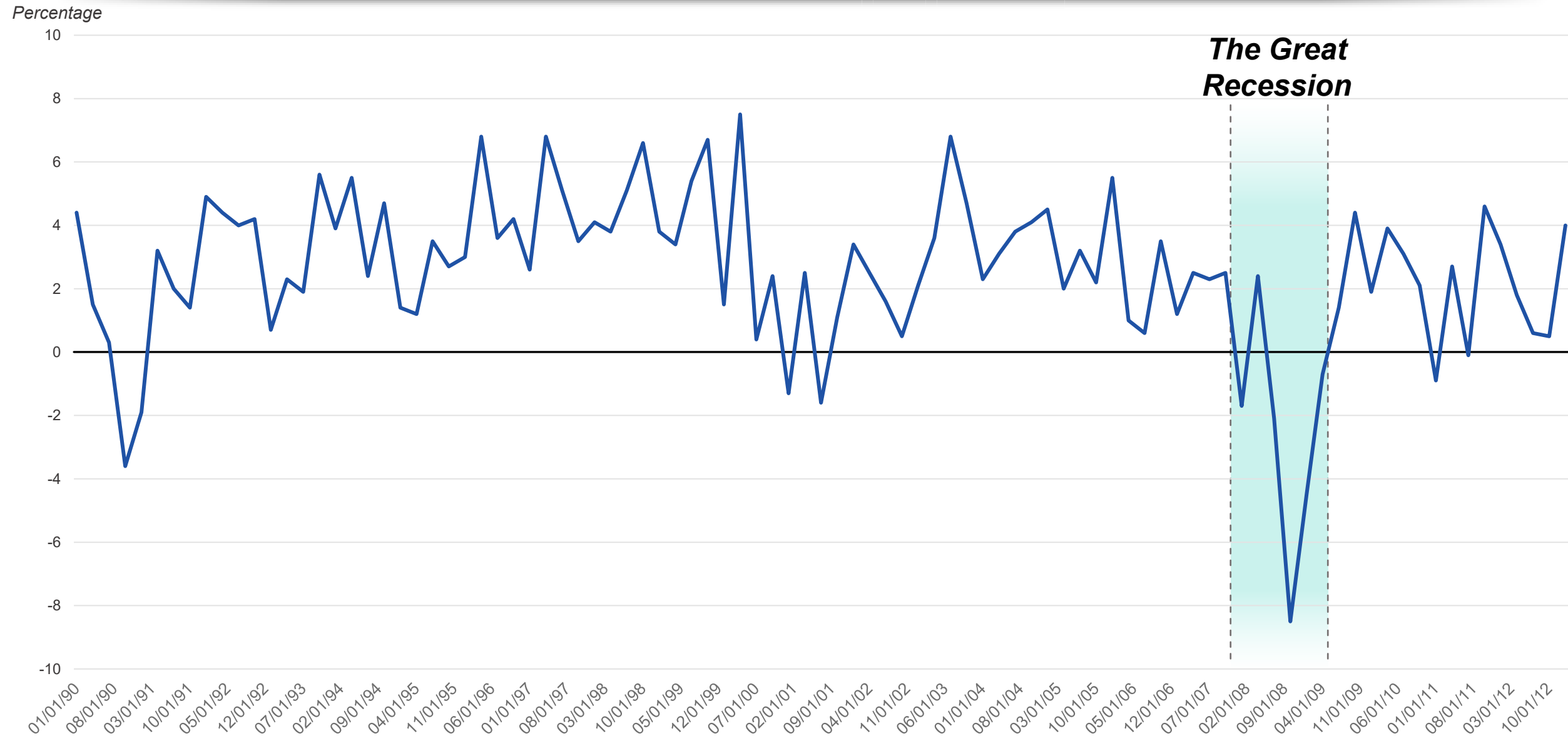


Dr. Baye's Benchmark Period Is Inappropriate: The '90s Were Different



Quarterly Real GDP, Percent Change From Preceding Period, Seasonally Adjusted Annual Rate (1990-2012)

Case: 1:11-cv-08002 Document # 53-1 Filed: 11/19/23 Page 38 of 45 PageID #: 20478



Dr. Baye's Time Trend Variable

EXPERT REPORT OF MICHAEL R. BAYE, PH.D.

Highly Confidential - Subject to Protective Order

January 22, 2015

Exhibit 16
Production Analysis
1990 - 2012

| Variable | Main Specification Log(Production) | Backfilling Ban Specification Log(Production) |
|------------------------------|---------------------------------------|---|
| (a) | (b) | (c) |
| Restriction 1 | -0.002 | |
| Restriction 2 | -0.006 | |
| Restriction 3 | -0.024 *** | |
| Restriction 4 | -0.056 *** | |
| Restriction 5 | -0.053 *** | |
| Backfilling Ban | | -0.021 *** |
| Lag 4 Real Feed Cost | -0.439 *** | -0.783 *** |
| Lag 4 Real Electricity Price | 0.004 | -0.014 ** |
| Lag 4 Real GDP | 0.026 *** | 0.024 *** |
| Time | 0.001 *** | 0.001 *** |
| Time Squared | | |
| Lag 5 Real Feed Cost | | |
| Lag 5 Real Electricity Price | | |

1.2% Increase
Per Year



| Variable | Main Specification Log(Production) | Backfilling Ban Specification Log(Production) |
|----------|---------------------------------------|---|
| (a) | (b) | (c) |

Time

0.001 ***

0.001 ***

| | | |
|---|------|------|
| Number of Observations | 272 | 272 |
| P-value of the Joint F-test on Restrictions | 0.00 | 0.00 |

Relevant Market



Shell Eggs



Egg Products

Summary Of Opinions

1

The conspiracy Plaintiffs alleged would be unlikely to reduce supply or raise prices

2

Production and pricing data indicate there was no effective conspiracy to reduce supply and raise prices

3

Dr. Baye's analysis is flawed and invalid

4

Plaintiffs have not demonstrated that egg product prices were higher than they should have been

Fewer Eggs Produced Does Not Mean Fewer Eggs Going To Egg Products

300 Eggs Produced

150  Shell eggs

50  Exports

100  Egg products

250 Eggs Produced

125  Shell eggs

25  Exports

100  Egg products

Egg Product Price Changes According To Dr. Baye's Backfilling Ban Model

Liquid Egg Whites
(Pasteurized)



-17.5%

Liquid Whole Eggs
(Pasteurized)



-24.2%

Liquid Whole Eggs
(Unpasteurized)



-25.5%

Liquid Egg Yolks
(Pasteurized)



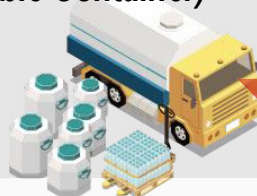
-20.3%

Liquid Egg Yolks
(Salted)



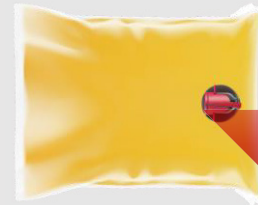
-24.7%

Liquid Sugared Yolks
(Portable Container)



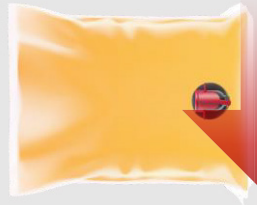
-24.3%

Frozen Whole Eggs



-16.5%

Frozen Egg Yolks
(Sugared)



-19.7%

Albumen
(Truckload)



-26.9%

Dried Blended Solids
(Truckload)



-15.3%

Dried Whole Solids
(Truckload)



-27.4%

Dried Yolk Solids
(Truckload)



-17.2%

Summary Of Opinions

1

The conspiracy Plaintiffs alleged would be unlikely to reduce supply or raise prices

2

Production and pricing data indicate there was no effective conspiracy to reduce supply and raise prices

3

Dr. Baye's analysis is flawed and invalid

4

Plaintiffs have not demonstrated that egg product prices were higher than they should have been